

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

Claim 1 (Currently Amended): A photovoltaic solar cell with comprising:

an electric solid material contact between a semiconductor layer of layer thickness d_{HL} and a plurality of metal nano emitters each of a space-charge zone of extent w within the semiconductor layer and embedded in an electrically insulating oxide layer applied on the semiconductor layer, with wherein minority carriers migrating migrate to the space-charge zone over a diffusion length L ; and with

a transparent conductive layer electrically insulated from the semiconductor layer by the oxide layer; and as well as with

front and rear contacts; characterized by the fact that
wherein the metal nano emitters (NE) form a Shottky contact and are three-
dimensionally structured in an acicular or aeicular or in a rib-like manner and are
separated from each other by a uniform distance $D \leq \sqrt{2}L$ and penetrate into the
semiconductor layer to a depth

$$T \geq d_{HL} - \frac{L}{2} + w.$$

Claim 2 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, characterized by the fact that wherein the metal nano emitters (NE) in the semiconductor layer (HL) are provided with lateral branches and/or extend obliquely in the semiconductor layer (HL).

Claim 3 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, characterized by the fact that wherein a reflective surface is applied to the rear surface of the semiconductor layer (HL) in front of the rear contact (RK).

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Claim 4 (Currently Amended): The photovoltaic solar cell in accordance with claim 1, characterized by the fact that wherein an antireflective layer is applied to the transparent conductive layer (TCO).

Claims 5-10 (Canceled)